Technical Data Sheet

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Badadur® PBT8 GF20 FR

PBT-GF20 FR

Flame retardant injection moulding grade based on PBT with 20% glass reinforcement

Properties	Test Conditions	Test Methods	Units	Typical Values
Mechanical Properties				
Tensile Modulus [1]	23° C, 1 mm/Min	ISO 527-1/2	MPa	7 200
Yield Stress [1]	23° C, 50 mm/Min	ISO 527-1/2	MPa	*
Yield Strain [1]	23° C, 50 mm/Min	ISO 527-1/2	%	*
Nominal Stress at Break [1]	23° C, 50 mm/Min	ISO 527-1/2	%	*
Stress at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	MPa	105
Strain at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	%	3,0
Bending Strength [2]	23° C	ISO 178	MPa	165
Charpy Impact Strength, unnotched [2]	23° C -30° C	ISO 179/1eU ISO 179/1eU	kJ/m2 kJ/m2	35 -
Notched Charpy Impact Strength [2]	23° C -30° C	ISO 179/1eA ISO 179/1eA	kJ/m2 kJ/m2	8 -
Izod notched Impact Strength [2]	23° C -30° C	ISO 180/1A ISO 180/1A	kJ/m2 kJ/m2	9 -
Thermal Properties				
Melting Temperature [3]	10 K/Min	ISO 3146	°C	223
Temperature of Deflection under Load [4]	0,45 MPa 1,8 MPa	ISO 75-1/2 ISO 75-1/2	°C °C	220 205
Coefficient of Linear Thermal Elongation [5]	parallel direction transverse direction	DIN 53752 DIN 53752	E-4/K E-4/K	0,4 1,0
Maximum Service Temperature	some hours 20 000 h 50 % Decrease in Tensile Strength or Yield Stress	- IEC 216	°C °C	170 140
Flammability [6]	0,8 mm 1,6 mm	UL 94 UL 94	Class Class	V-0 V-0
Glow Wire Test	0,75 mm / 1,6 mm 0,75 mm / 1,6 mm	GWIT GWFI	IEC-60695-2-13 IEC-60695-2-12	- 960
Electric Properties				
Relative Permittivity [7]	1 MHz	IEC 250	-	3,6
Dissipation Factor [7]	1 MHz	IEC 250	E-4	170
Specific Volume Resistivity [7]	-	IEC 93	Ohm cm	>10 [16]
Specific Surface Resistivity [7]	-	IEC 93	Ohm	>10 [14]
Dielectric Strength [7]	-	IEC 243-1	kV/mm	29
Comparative Tracking Index	-	IEC 112	V	400
Other data				
Water Absorption	23° C, Saturation	ISO 62	%	0,50
Moisture Absorption	23° C, 50 % r.H.	ISO 62	%	0,15
Density	23 °C	ISO 1183	g / ccm	1,60
Processing				
Melt Temperature	-	-	°C	245 ï 265
Tool Surface Temperature	-	-	°C	60 ï 100
Drying Temperature	-	-	°C	110 - 130
Drying Time	-	-	h	2 ï 4h